

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
12 February 2004 (12.02.2004)

PCT

(10) International Publication Number
WO 2004/013036 A1

(51) International Patent Classification⁷: B67D 5/02,
5/34, 5/40

(21) International Application Number:
PCT/IB2003/003386

(22) International Filing Date: 23 July 2003 (23.07.2003)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
BO2002A000508 1 August 2002 (01.08.2002) IT

(71) Applicant (for all designated States except US): CPS Color Equipment S.p.A. [IT/IT]; Via dell'Agricoltura, 103, I-41038 S. Felice sul Panaro (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MARAZZI, Umberto [IT/IT]; Via Provinciale, 58/A, I-41036 Medolla (IT). MANFREDINI, Giorgio [IT/IT]; Via Della Libertà, 28, I-41032 Cavezzo (IT). CLO', Monica [IT/IT]; Via De Gasperi 3, I-41018 San Cesario Sul Panaro (IT). MAZZALVERI, Leopoldo [IT/IT]; Via San Donato, 9, I-61029 Urbino (IT).

(74) Agents: PROVVISIONATO, Paolo et al.; Provvisionato & Co. S.r.l., Piazza di Porta Mascarella, 7, I-40126 Bologna (IT).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

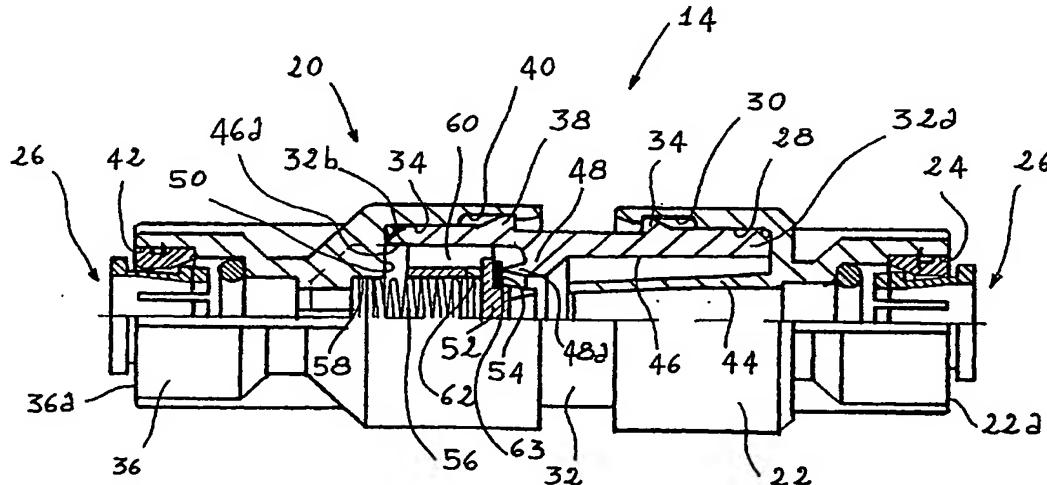
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU,

[Continued on next page]

(54) Title: A FLUID-DISPENSING CIRCUIT WITH CHECK VALVES



WO 2004/013036 A1

(57) Abstract: A circuit for dispensing fluids, in particular, dyes, inks paints and the like, comprises pump means (12) including a variable-volume chamber (66) with at least one flexible wall. The pump means (12) communicate with an output duct (16, 72) for dispensing the fluids. Two one-way valves (14, 94) are mounted in series in the output duct (16, 72).



TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

(48) Date of publication of this corrected version:

22 April 2004

(15) Information about Correction:

see PCT Gazette No. 17/2004 of 22 April 2004, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.